Conference on *Paying for Sustainable Water Infrastructure: Innovations for the 21st Century*

Remarks by Benjamin H. Grumbles
March 22, 2007

1. *Purpose and Mission of this conference*
2. *The importance of our water infrastructure*
3. *Importance of innovative funding*
    a. *Examples of existing innovations*
    b. *Water enterprise bonds*
4. *Sustainable infrastructure*
    a. *WaterSense*
    b. *Leveraging the Water-Energy Linkage*
    c. *Green infrastructure*
5. *Climate change- national water program workgroup & carbon sequestration*
6. *Water security*

Introduction

- I am looking at the face and the future of America's water infrastructure. You are the experts, the champions, the carriers, and perhaps most importantly…the innovators, locally and globally.
- We face many challenges in developing long-term sustainable infrastructure in the new millennium. Fortunately, we're also seeing and hearing about innovative solutions.

- These innovations are the upsurge of a third wave – that is bringing in new ideas about innovation, sustainability and yes, greater private sector participation.
- This Conference provides each of you with the opportunity and responsibility to do something dramatically different and embark on a new course to explore and pursue innovative tools and strategies to pay for water sustainable infrastructure in the 21st century.

1. Purpose and Mission of this Conference

- EPA is pleased to invite experts from around the country and the world for this dialogue. We do not pretend to have all the answers. We don't even have all the questions. But these several days together will help significantly.
- This Conference brings together stakeholders from all levels of government and the private sector – state, local federal, non-profit, and others. A collaborative approach across all levels of government, which engages all public and private sector stakeholders, is likely the only way to address this most pressing challenge.

- Our purpose here in Atlanta is to discuss, debate, and brainstorm for innovative approaches to reducing costs and increasing investment in drinking water and wastewater systems and programs.

2. The Importance of Our Water Infrastructure

- Oscar Wilde said that a cynic is someone who knows the cost of everything but the value of nothing.
- As leaders in the water sector, you certainly know the cost and value of sustaining our water resources and infrastructure.
- Too often in our American culture, however, we have taken for granted a system that provides, clean, safe and inexpensive water: from the drinking water that automatically appears when we turn on our taps, to the water that allows us to flush our toilets, to our local water bodies where we rarely think twice about fishing or swimming. As a result, the value of water and our water infrastructure has diminished.
- As Administrator Johnson pointed out yesterday, keeping America's water infrastructure both sustainable and secure is one of EPA's top priorities. Providing for the nation's water infrastructure needs is obviously a public responsibility, a public trust.

- Together we must help citizens understand the value of water to their communities and that we must all invest in our infrastructure to obtain this value.
- It will require a great deal of public education and public acceptance. As leaders in this area, we face the challenge of educating the public about the value of water. It truly is the lifeblood of our bodies, our nation, and our well-being. We must help people realize that investments in water infrastructure are investments in their communities. As Bruce Tobey of Gloucester, Massachusetts and LGAC says on the new DVD: "Water infrastructure is the collective wealth of a community."

3. Innovative Funding

- EPA is helping lead the third wave of water infrastructure financing and investment. The importance of *innovative* funding should be clear to everyone here. We are all keenly aware that our current and future infrastructure needs are significant. We must deliver and manage our infrastructure efficiently and maximize revenues from the essential and valuable services our infrastructure provides.
-

- While there is certainly a significant Federal role – as there always has been and will continue to be far into the future – federal funds alone cannot meet the needs. For example, annual capital investment in wastewater infrastructure has remained rather flat, in constant dollars, for many years – at least until very recently. Though the relative contributions of the Federal government (through the Construction Grant, SRF and non-EPA programs), state government, and – by far the bulk of the burden – municipal debt and pay-as-you-go, have fluctuated over the decades, the total stays nearly the same. So, we must look for significant new sources of capital. Can we really afford not to?
- As we all know, in the 1980's, the State Revolving Fund program was a new, innovative and creative idea. It's hard to believe but for nearly 20 years, together with our state and local partners, Clean Water SRFs have played a significant role in helping to finance our Nation's water infrastructure! And, since 1996, the Safe Drinking Water Act has played a similar role in drinking water financing.
- The SRFs promised to leverage the Federal investment and allow each state to focus on its highest priority needs. They have kept that promise. They emphasized financing over simple grants.

- Just as the SRFs were an innovative tool two decades ago, we need new ideas and new tools today.

3.a) Examples of Existing Innovations

- Fortunately, we are already seeing innovative solutions. It should come as no surprise, but many of these innovations are homespun at the state and local levels. For Example:

State of Maryland – "Flush Fee" to fund Chesapeake Bay–related projects

- In Maryland, a "flush fee" is collected on all households and the funds are provided to the Bay Restoration Fund. The fee is collected from users of the public sewer system and is directed to upgrading the wastewater system.
- In 2005, the state added a $30 annual "flush fee" to the utility bills of property owners who use the public sewer system and septic tanks, and raised $38 million. Annually, the state is expected to raise approximately $65 million in fees.
- 66 major facilities discharging to the Chesapeake Bay have priority in the use of this fund, specifically to upgrade their nutrient removal processes. Of these, 47 had begun construction, design, or planning of upgrades by the end of 2005.

Sarasota, NY Stormwater Utility Fees

- In Sarasota, New York, utility fees based on a property's impervious surface are collected to fund planning and facility maintenance activities was well as capital improvements such as canal cleaning, mowing, and construction projects. Over $100 million has been generated through this fee system.

Local Loan Programs - The Massachusetts Community Septic Management Program

- One final example… the Massachusetts Community Septic Management Program has made loans through local municipalities to fund repair and replacement of failing septic systems since 1995. The initiative has funded more than 3,000 homeowner projects across the state with the cooperation of local municipalities and the CWSRF.
- To qualify for funding, a community must detail a proposed septic loan program for its residents. Qualifying communities receive loans from the CWSRF program for 20 years at zero percent interest. They typically borrow $200,000. The state also provides grants of up to $20,000 to municipalities to support planning activities and program administration.
- Homeowners receive 20-year loans from their community program at two to five percent interest. Municipalities can use interest accrued on the loans to support the administrative costs of the loan programs.

3.b) Water Enterprise Bonds

- As Administrator Johnson mentioned, the Bush Administration is proposing to exempt private activity bonds (PABs) issued to finance public-purpose drinking water and wastewater facilities from state PAB volume caps.
- The objectives of this proposal – which the Administration calls "Water Enterprise Bonds"— are to accelerate and increase investment in the Nation's water infrastructure and to facilitate development of more sustainable infrastructure projects through innovative market-based approaches.
- Providing expanded access to private activity bonds for communities will allow them to finance, build, and manage water facilities using public-private partnerships that deliver the best mix of technology, construction, and operations with the appropriate transfer of risk to their private sector partners.
- This proposal, if enacted, would lead to a more robust market offering of new solutions to our water infrastructure investment challenges.

4. Sustainable Infrastructure

- Another part of EPA's ongoing efforts to create a structure for identifying new solutions to our infrastructure challenges is our Sustainable Infrastructure Initiative – our Four Pillars Strategy of: Better Management, Full-cost Pricing, Water Efficiency, and Watershed-based Approaches.
- EPA's Sustainable Infrastructure Initiative is helping to fundamentally change the way the nation views, values and manages its water infrastructure.
- EPA's comprehensive strategy includes developing more productive and sustainable utility practices, attributes and tools. A good example of our work in this area is our ongoing collaboration with utilities to ensure that operations and infrastructure are effectively managed. As the Administrator indicated, the agreement between EPA and six major Water Associations will feature a set of Attributes of Effectively Managed Utilities, suggested utility performance measures, and collaboration to promote use of these tools by utilities all around the

country. We believe our collective efforts will help establish a common utility management framework to ensure that utility operations are sustainable in the future.

- While our strategy is sound, how we implement it will determine our success.
- Our strategy also includes efforts to ensure that customer rates fully and continually reflect the value of the service delivered to homes and businesses. Full cost pricing isn't always the easy thing to do, but it's the right thing to do. It also recognizes there will be a need for lifeline rates and other hardship exceptions. Opponents and cynics should listen to Oscar Wilde. He said, "A cynic is one who knows the cost of everything and the value of nothing."
- And it includes making certain that every dollar of investment in "hard infrastructure" is absolutely necessary by first establishing improved water efficiency practices and adopting "green infrastructure" and other solutions integrated into the watershed to minimize the flows that have to be transmitted and treated.

4.a) WaterSense

- Through water efficiency, utilities can delay expansions to deal with population growth and make better use of existing resources. Our water efficiency "pillar" is about providing consumers and communities with information and choices, establishing pricing policies to encourage efficiency, identifying technologies and promoting programs to detect and repair leaks, and encouraging water reuse.
- The WaterSense program will educate American consumers about making smart water choices that save money and maintain high environmental standards without compromising performance.
- WaterSense technical requirements, or "specifications," are being established to recognize products and services that perform at least 20 percent more efficiently than their less efficient counterparts. These products and service providers will be able to display the WaterSense label.

- Since the program was announced, WaterSense has reached a number of important milestones in key areas:

  Landscape Irrigation

  - WaterSense is labeling Certification Programs for Irrigation Professionals. These certification programs test for the ability to design, install, maintain, and audit water-efficient landscape irrigation systems.
  - In addition, professionals who have obtained certification from a WaterSense labeled program and provide services consistent with WaterSense specifications can partner with EPA to affirm their commitment to water efficiency in the landscape.

  High Efficiency Toilets

  - Recently, the WaterSense program also issued its final specification for a new generation of high-efficiency toilets that perform as well as, or better than, less efficient models.
  - Only toilets that meet the specification for efficiency and performance and pass an independent, third-party certification process will be eligible to bear the WaterSense label.

4.b) Leveraging the Water-Energy Linkage

- Saving water is important not only because it will help us sustain our water infrastructure, but also because it saves energy. The two resources are actually linked at the hip, and both are essential to our economy and quality of life.
- Running your faucet for 5 minutes is equivalent to running a 60 watt light bulb for 14 hours!
- EPA estimates that about eight percent of the nation's energy demand is used to pump, treat and heat water. U.S. drinking water and wastewater systems spend about $4 billion a year on energy to pump, treat, deliver, collect and clean water – with most of this cost borne by ratepayers and municipalities.
- Given the water supply pressures from our country's growing population, we must recognize and leverage the linkage between water and energy on both the supply and demand side. This will not only help communities realize greater energy and water savings, but also enhance environmental benefits. Connecting the drops and the watts—linking water and energy--strengthens our chances for public support and longer term sustainability.

4.c) Green Infrastructure

- We live in an affluent society…but also an effluent society.
- When it comes to reducing stormwater and other excess flows that add stress our sewer systems and water bodies, green infrastructure can be both a cost-effective and an environmentally preferable alternative to centralized “hard” infrastructure solutions.
- Green infrastructure approaches essentially infiltrate, evapotranspirate or reuse stormwater, with significant utilization of soils and vegetation rather than traditional hardscape collection, conveyance and storage structures.
- Green roofs, trees and tree boxes, rain gardens, vegetated swales, and pocket wetlands are just a few examples of common green infrastructure approaches.

- Several cities have begun using green infrastructure approaches to help solve their wet weather discharge problems. The Natural Resources Defense Council (NRDC) recently published a document with information and case studies on these efforts (*Rooftops to Rivers: Green Strategies for controlling stormwater and combined sewer overflows*). One of my favorite examples is in Milwaukee, Wisconsin. Kevin Schafer shows off the City's "Green Seams" program with pride. Green Seams is a land acquisition program whose goal is to ensure that Milwaukee's rivers have adequate protected adjacent areas to minimize direct runoff into the waterways and reduce flooding after storms. The goal is to provide "green seams" along the rivers.
- EPA's Office of Water is working with a coalition of organizations, including NRDC, the National Association of Clean Water Agencies, and the Low Impact Development Center, to develop additional strategies for green infrastructure solutions to water quality challenges. Our own building at headquarters in DC has a new rain garden and stormwater cistern.
- Now is the time to embrace low-impact development.

5. Climate Change- National Water Program Workgroup & Carbon Sequestration

- EPA and its partners, locally and globally, are also learning more and doing more to confront another serious challenge for our water resources-- climate change. Increasingly, we understand climate change may have impacts on water infrastructure and watersheds and affect our efforts to ensure progress under the Safe Drinking Water Act, Clean Water Act, and various ocean and coastal laws.
- While there remains some uncertainty on the scope and timing of climate change related effects, the National Water Program and its partners should take prudent steps now to assess emerging information, evaluate potential impacts of climate change on water programs, and identify appropriate response actions.
- The National Water Program recently established a Climate Change Workgroup, made up of senior managers from EPA headquarters and regional water offices, and including representatives from of the Office of Air and Radiation and the Office of Research and Development.

- The Water Program Climate Change Workgroup will work to improve understanding of climate change impacts on water resources among water program managers. The Workgroup will also develop a Climate Change Strategy for the National Water Program. The Strategy will define specific actions the National Water Program can take over the next several years to tailor the implementation of the National Water Program to better address the potential challenges posed by climate change.
- In addition, EPA's Underground Injection Control (UIC) program is focusing much attention on ensuring the safe and effective deployment of geologic sequestration of carbon dioxide as a means to reduce concentrations of greenhouse gases in the atmosphere.
- The Department of Energy is planning approximately 25 pilot projects from across the country and they will likely seek UIC permits to conduct their studies via small scale test injection of CO2. EPA and states will be permitting many of these projects as Class V experimental technology wells, unless they are oil and gas enhanced recovery projects which would be permitted as Class II enhanced recovery wells.

- We believe our WaterSense program is another example of mitigation. Less water use means less energy—and thus, less greenhouse gas emissions.

6. Water Security

- Security isn't a primary focus of the conference but it's connected to sustainability. In this post-9/11 world, it's a fact of life, so we must continue to secure financial infrastructure. The Administration and EPA will continue to put a priority on prevention, detection, response and recovery—from terrorist acts as well as natural hazards. Even the best run water system isn't sustainable if it isn't secure.

Conclusion

- Ladies and Gentlemen, innovators and regulators, entrepreneurs and advocates: as Pogo says, WE FACE INSURMOUNTABLE OPPORTUNITIES. The Gap is real. The numbers are large. The problems are growing but so are the solutions. Let's work together, despite our different agencies, budgets, and biases, to add new tools, to increase opportunity and local choice. We truly have a shared agenda. We can implement it if we work together.

- I see better state approaches to integrating funding solutions and working actively to help communities identify and implement together a mix of options to obtain the best possible approach in a given locale. While at the same time, I see utilities in those communities being made more efficient and effective by implementing asset management approaches and other sustainable management strategies.
- A collaborative approach across all levels of government that engages all public and private sector stakeholders is the best way to achieve greater success in addressing our most pressing challenges in achieving sustainable water infrastructure.
- A year from now, on World Water Day, where will we be? I feel confident we'll be celebrating real progress made at this conference and the concrete, as well as softer-path, steps taken to implement innovative and sustainable approaches.